Special Issue

Laser Acceleration Technology and Applications

Message from the Guest Editor

Laser-driven particle accelerators have experienced tremendous development over the last few years, with clear potential to soon become a compact alternative to more conventional radio-frequency based accelerators. The ability to sustain extremely high accelerating fields (easily exceeding the GV/m) allows for the acceleration of electrons up to GeV-like energies over only a few cm of plasma. Moreover, laser-driven accelerators have the unique capability of generating femtosecond-scale electron beams with source sizes in the micron range and divergences of the order of a mrad. These appealing characteristics are unveiling a whole new range of applications in healthcare, manufacturing, and fundamental science that would not be possible otherwise.

- wakefield
- high-intensity lasers
- electron beams
- plasma physics
- optics
- particle acceleration

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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